

Name _____

Date _____

Advanced Algebra

Unit 4: Quadratics

1) $y = 3(x+8)(x-2)$

X intercepts:

Vertex:

General Form:

Vertex Form:

2) $y = -2(x+8)(x+6)$

X intercepts:

Vertex:

General Form:

Vertex Form:

3) $y = 5(x+6)(x-2)$

X intercepts:

Vertex:

General Form:

Vertex Form:

4) $y = 4(x-2)(x-4)$

X intercepts:

Vertex:

General Form:

Vertex Form:

5) $y = \frac{1}{2} (x-6)(x+10)$

X intercepts:

Vertex:

General Form:

Vertex Form:

6) $y = \frac{1}{4} (x-10)(x+12)$

x intercepts:

Vertex:

General Form:

Vertex Form:

$$7) y = 8x^2 + 20x + 12$$

Factored form:

X intercepts:

Vertex form:

$$8) y = 15x^2 - 14x - 8$$

factored form:

x intercepts:

vertex form:

$$9) y = 12x^2 + 26x - 16$$

Factored form:

X intercepts:

Vertex form:

$$10) y = 6x^2 + 12x - 48$$

factored form:

x intercepts:

vertex form:

11) You have 300 feet of fence. You are building a 3 sided rectangular fence with an existing wall of a building being the 4th side. So no material is needed for this side of the fence.

a) Draw 3 pictures

b) Find the dimensions to maximize the area of this fence

c) What is the equation to model this situation